

 reviewed paper

## Promoting Public Participation in Post-Disaster Construction through Wechat Platform

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### 1 ABSTRACT

**Purpose** - How could memory, heritage and post-disaster construction integrated in practice? The purpose of this paper is to introduce our approach in public participation of reconstruction plan, after a raging fire destroyed part of the historic town of Shangri-la, China.

**Approach** - We develop two kind of crowd sourcing platform to collect and also present memory of the vanishing streets which were destroyed completely by fire. One is on Wechat platform. Through secondary development on Wechat Platform, we built a public service account that allowed users to upload photos, hand-painted pictures, and text, all of the files can be saved automatically in our database. The other platform in on web. The website is designed for users to upload photos based on location where they were taken. All the images collected from the two platforms can be open accessed viewed with location information, which had been sort out by volunteers.

The wechat platform is also used to communicate and provide education and information of the historic town to promote awareness of the heritage value. Users can send text to the public account, without privacy risk.

**Findings** - Spreading with help from a local non-government organization, the invasions of the wechat public service account received amazing amount of attention, which, according to automatic web statistics, reached up to 40,000. About 150 people followed the Wechat public account. At last we received nearly 1000 photos and hand-painted pictures. About half of our users are from Shangrila local community, Their uploaded files including historical photos of the community, providing us local perspective with long period of concern. The other half users come from travelers from all over the world, mostly from China but also european people. Their photos and paintings also contribute to the memory construction.

**Implications** - The widespread use of smart mobile devices can make individuals more active as participants of public fairs, with the premise of carefully designed infrastructure. In this way, new technologies may contribute to a people centred principle in our conservation and design process.

**Value** - Our approach is so-called Volunteered Geographic Information(VGI)(Goodchild,2007) in collecting memory fragments for post-disaster construction. By convenience of uploading photos and texts from mobile devices, we successfully involved local people and travelers' participation. The case might bring insight into the field of public participation practice.

### 2 INTRODUCTION

The paper drawing from the post-disaster construction plan and community engagement we conducted in the ancient town of Shangri-la. The ancient town, named Dukezong, is listed as one of the historic town in Yunnan Province, China, well known for its well-preserved Tibetan dwellings. About 17.8% of the core protected area was totally damaged, including commercial streets and the center square of the town.

As a preceding part of post-disaster construction plan, we launched an online programme to collect images and texts which represent the memory of the old town, especially the damaged part. The data collected would not only make a memorial for local community, but also serves as important reference for reconstruction plan. As the aim of post-disaster construction plan is to respect the authenticity local tibentan style and former landscape of the old town, we need mass storage of documentations of the old town, which was scarce at the time we began.

This paper will explain our approach of crowdsourcing in collecting data and also the strategy of post-disaster construction plan. With the help of widespread use of smartphones among local tibentan people, our approach successfully involved local tibentan communities and also former travelers from all over the world to engage.

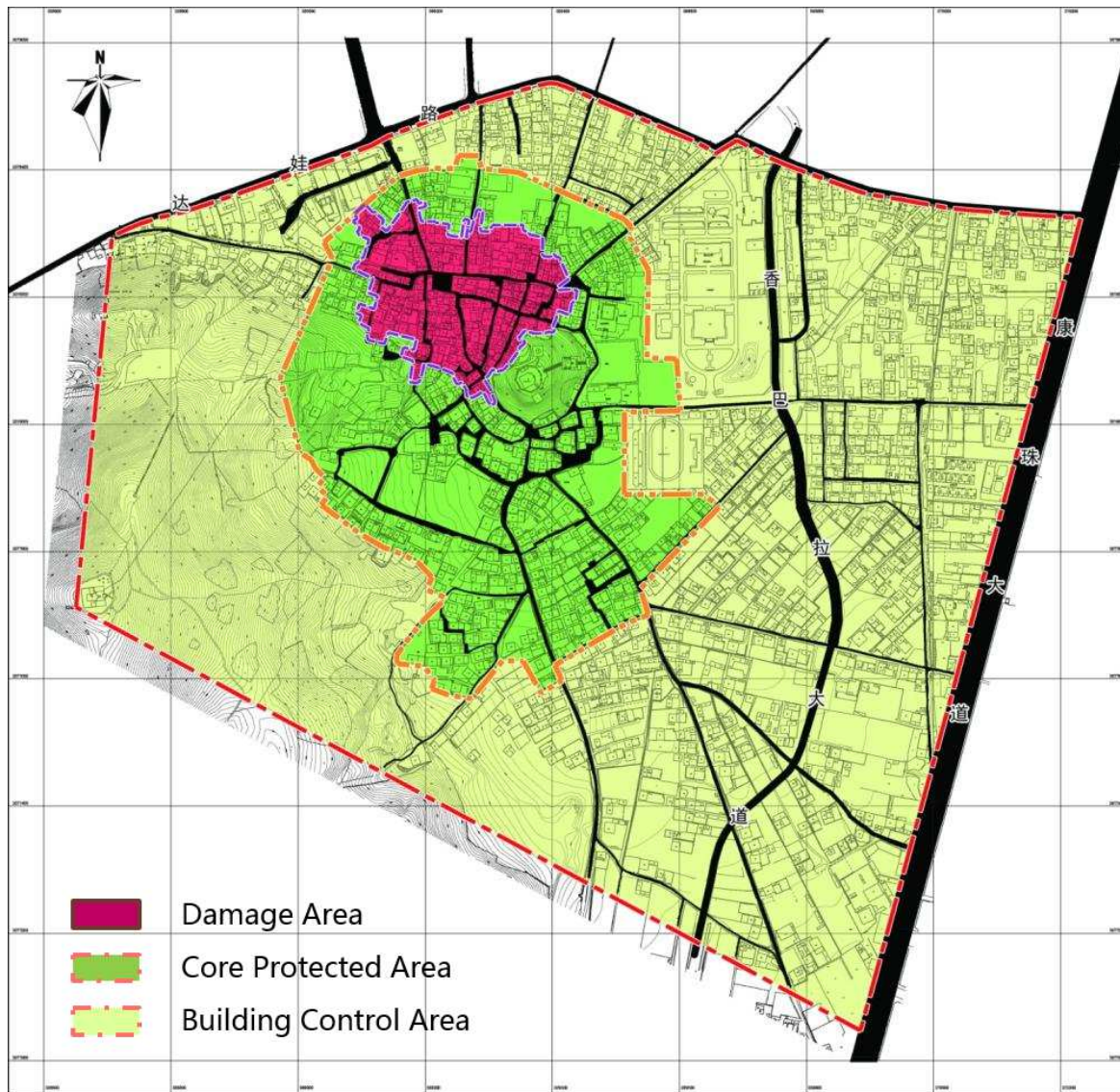


Figure 1 The Damage Area of Dukezong

### 3 THE CONTEXT OF PUBLIC PARTICIPATION IN SHANGRILA

#### 3.1 Public Participation Overview

The term “public participation” is quite new in the Chinese language, which was first used by the Chinese leadership in October 2003. For more than a decade, China has been exploring and beginning to institutionalize mechanisms to permit the general public to have greater input into urban plan and other government decisions that affect their daily lives. However, in daily practice of public participation in urban planning, experts and general public can only give their opinions within 30 days after the draft is published for comments. To promote better community engagement, we need a new understanding of the role of the public. The public are not only interested parties, but also the provider of knowledge. This means that community engagement should include the process of informing, mobilising and enhancing deliberation to seek common ground of decision making.

The past decades is also the period that information communication technologies played an important role in daily lives. Naturally the web become an main interface for information about and the promotion of planning in progress.

#### 3.2 Features of the Shangri-la Case

Shangri-la, famous for the earthly paradise legend, is located at the south-east edged of Tibetan Plateau. The ancient town of Dukezong is the central tibetan town of Shangri-la. As a key stop on the Ancient Tea-horse Road and a focal point for Han-Tibetan exchanges, the town has a history of 1300 years. As Shangri-la

located in Yunnan Province and its traffic advantage, the region is an open center place for mainly Tibetans but also other minority groups in the southwest of China. Situated at an altitude of 3,200m above sea level, Dukezong town was known for its well-preserved Tibetan dwellings and the old Tibetan way of life, which attract many tourists every year.

The raging fire broke out in Dukezong in January 2014 lasted for 10 hours. The blaze broke out in an Inn after its owner forgot to turn off the heater. The fire burned over 59,980 square meters, damaging more than 240 houses, with another 43 properties having to be dismantled to isolate the fire. Most of damaged houses were in commercial use, including several listed historic vernacular buildings.

North to the ancient town is the modern part of Shangri-la city, and most local people dwell in the south and east part of the old town, leaving the left part where the fire damaged mainly constitutes of handicraft shops, café, restaurants and hotels. As a central market and famous tourist destination, to maintain more space for commercial use, many houses on these streets experienced an expansion or rebuilding in the last ten years. All of them maintained a Tibetan style, but some features are no longer local but of Lasa style.

As a model of ancient Tibetan town and tourist destination, local government and community expressed their concern in respecting Tibetan culture and maintaining the local style in post-disaster construction plan. To achieve this goal, we need to identify the authenticity of local style and features, and tracking the transition of buildings, streets in last 20 years.

### 3.3 The Challenges

The first challenge is that we need to cross the borders to inform Tibetan communities the principle of the plan, and that we need their help. The mobilisation for data collection led by local government tend to be of little effect, which means that we need a more effective approach to raise awareness of the local community to become involved. The second challenge is that also Dukezong has been a popular destination in the last ten years, it's hard to find any integrated documentation or a completed record of houses of the old town. There should be mass photographs taken by tourists and local people, the problem is, where to find them and how to get their involvement?

## 4 THE TECHNOLOGY OF WECHAT PLATFORM AND OUR APPROACH

One of the main problems we have to face and solve is how to get the public to actively participate in a short time. Smart phones and micro-channel depth popularity in China offers the possibility for this work.

### 4.1 The Widespread Use of Smartphones and Wechat App

According to the International Telecommunications Union 2011 statistics the two-thirds (2/3) of the global population does not have access to the Internet. In contrary, while 87% has a mobile phone. The situation in Shangri-la is not an exception. In underdeveloped areas, more people through mobile phones instead of computers to access the Internet.

Wechat is a popular instant messaging tool that can be used on Apple, Android, Windows Phone, BlackBerry and nearly all smartphone platform in China. Since its first release in 2011, it has experienced a rapid growth in the Chinese language users, and quickly became the most popular mobile applications in China. According to the research firm Penguin Thinktank's report in 2014, the current global active users of Wechat has reached 468 million, including at least 50 million users outside China. According to a sample survey of all Chinese provinces covered by this report, as the APP maintains a high degree of user stickiness. More than 60% of respondents launch it every day and use the Wechat more than 10 times, even more than the use of short messages. 62.7% of the Wechat users have over 50 contacts in their Wechat addressbook, more than 40% users have more than 100 contacts.

### 4.2 The Functional features of Wechat

Wechat's services integrate communication and information with entertainment, personal media and e-commerce, include Moments, which is similar to Instagram; Hold To Talk voice chat, Groups, and Public Accounts.

Wechat design a series of programs to promote contact between people through the establishment of Wechat. Firstly, WeChat is an outward looking service that can be registered through a QQ number, Weibo account,

phone number or Facebook account. Secondly, in face to face occasions, you can add friends to wechat contacts by the built-in two-dimensional code scanning tools. Thirdly, the design of the wechat group function, allows every member to add new member to the group. According to the theory of Six Degrees of Separation, it brings a brand new way to gather people freely and quickly under a common interest. In a word, the design and widespread of wechat brings an important opportunity for people to build new social ties under common topic or interest.

Public Accounts is a light app based on wechat platform, which provides a secondary development of the port, so that in addition to the one-way dissemination of information in the public platform, a number of interactive features can be realized through mobile wechat end. The report above shows that eighty percent of the users has subscribed to at least one Public Account. Every one with an ID card can register up to 5 Public Accounts on the paltform.

The design of Wechat Public Account made information that integrated with graphs and texts quite easy to push to the subscriber, and also easy to share through repost on the Moments. The dissemination mechanism made it possible for an article to spread through the help of Public Accounts, Moments and Groups. On Feb. 28th, a new video concerned China's haze by Tencent quickly reached the click number of 29, 530, 000 within 24 hours, thanks to the amazing spread efficiency of Wechat Platform.

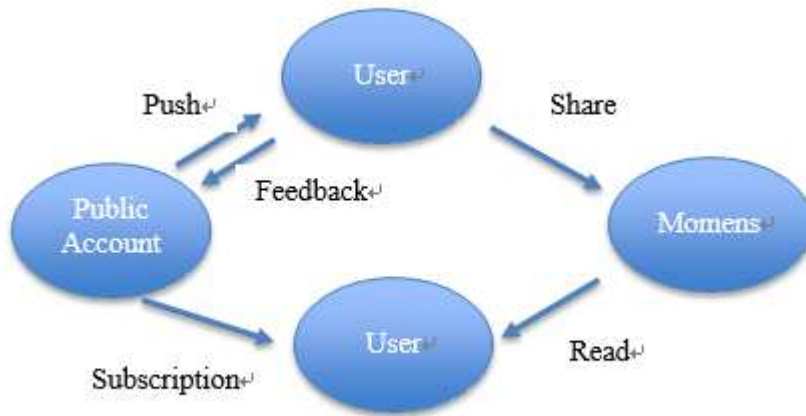


Figure 2 The Dissemination Mechanism of Public Accounts

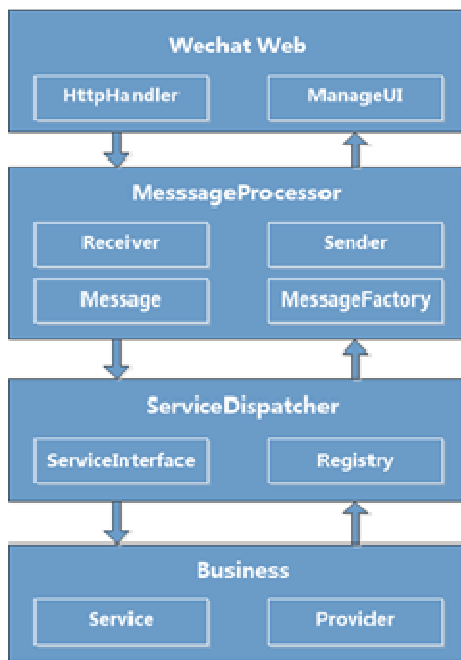


Figure 3 (left) Structure of The Public Account Service. Figure 4 (right) Interface of Wechat for participants to upload photos



## Our Approach of Using Public Accounts for public participation

Through secondary development on Wechat Platform, we built a public service account that allowed users to upload photos, hand-painted pictures, and text, all of the files can be saved automatically in our database. The back-stage website is also open for users to upload photos based on location where they were taken. All the images collected from the two platforms can be open accessed viewed with location information, which had been sort out by volunteers.

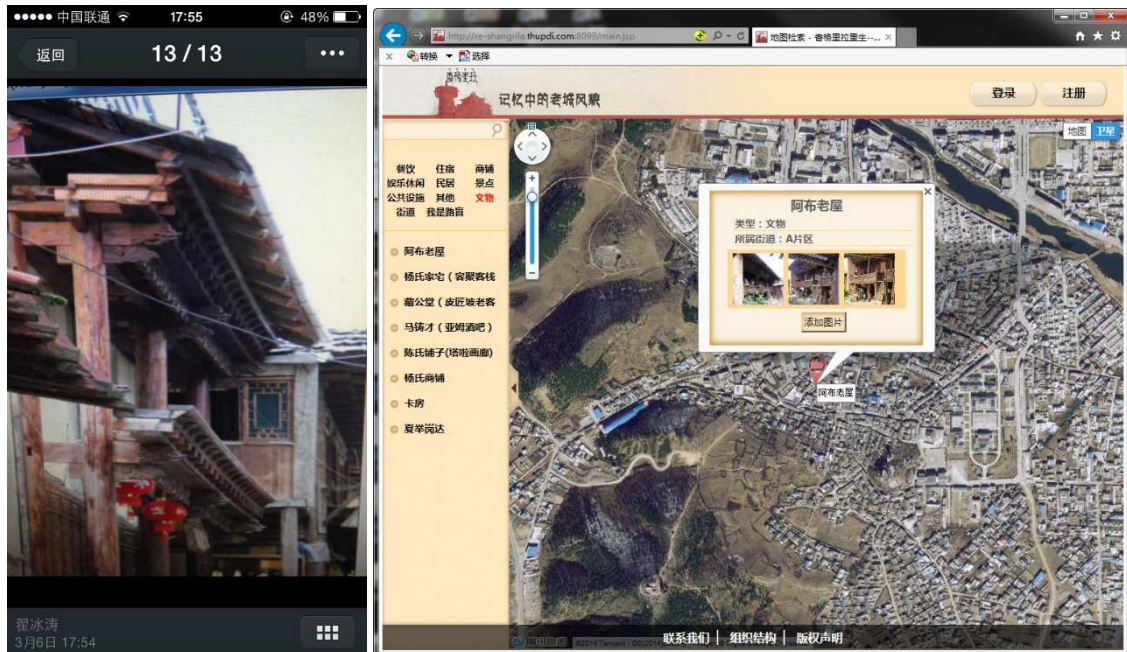


Figure 5 Interface on Mobile Device and PC

Besides data collecting, the wechat platform is also used to inform our principle of the plan to the public, to communicate and provide education and information of the historic town to promote awareness of the heritage value. Users can send text to the public account and get feedback right from operator of the Account.

### 4.3 The Strategy on Getting Local Community Engagement

Based on the fact that smartphone and Wechat App were widely used in Shangri-la region, we searched web and quickly find a Shangri-la local Public Account named Rila Linka, whose topic is to promote the spread of Tibetan Culutre, which has many local subscribers in Shangri-la. With help from Rila Linka, the invations of the wechat public service account received amazing amount of attention. About 170 people followed the Wechat public account, half of them are supposed to be from local community. At last we received nearly 1000 photos and hand-painted pictures, all of which came from Wechat platform, none from website. The uploaded files includes historical photos of the community, provided us a local perspective with long period of concern. The other half users come from travlers from all over the world, mostly from China but also european people. Their photos and paintings also contribute to the memory construction. What's more, finally we were able to track the transition of buildings, streets in last 20 years.

## 5 CONCLUSION

The widespread use of smart mobile devices can make individuals more active as participants of public fairs, with the premise of carefully designed infrastructure. In this way, new technologies may contribute to a people centred principle in our conservation and design process.

The so-called volunteered geographic information played a great role in collecting memory fragments for post-disaster construction. By convenience of uploading photos and texts from mobile devices, we successfully involved local people and travlers' participation. The case might bring insight into the field of public participation practice.

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